

SUPPLY AND COST OF ALTERNATIVES TO MTBE IN GASOLINE

TECHNICAL APPENDICES

Exhibits



DECEMBER 1998
CALIFORNIA
ENERGY
COMMISSION

Pete Wilson, Governor

P300-98-013K

EXHIBITS FOR

**SUPPLY AND COST OF ALTERNATIVES
TO MTBE IN GASOLINE**

California Energy Commission

October 1998

EXHIBIT A

UPDATED INFORMATIVE DIGEST

Amendments To The California Cleaner-Burning Gasoline Regulations

LIST OF EXHIBITS

- A. Updated Informative Digest, Amendments to the California Cleaner-Burning Gasoline Regulations
- B. Oxygenate Information Sheets
- C. Federal Register Document, Change in Minimum Oxygen Content Requirement for Reformulated Gasoline
- D. Bill Summary and Status for the 105th Congress, H.R. 630

UPDATED INFORMATIVE DIGEST

Amendments to the California Cleaner-Burning Gasoline Regulations

Sections Affected: Amendments to Sections 2260 to 2262.7 of Title 13, California Code of Regulations (CCR).

Background

The California Phase 2 reformulated gasoline (CaRFG) regulations were adopted by the California Air Resources Board (the Board or ARB) following a hearing in November 1991 and became applicable in the spring of 1996. The regulations establish a comprehensive set of standards for gasoline designed to achieve the maximum reductions in emissions of criteria pollutants and toxic air contaminants from gasoline-powered motor vehicles. The standards cover sulfur, benzene, olefin, oxygen, and aromatic hydrocarbon contents, the 50 percent and 90 percent distillation temperatures (T50 and T90), and Reid vapor pressure (RVP).

The CaRFG standards include “cap” limits that apply to finished gasoline throughout the California gasoline distribution system. The standards also include more stringent limits that apply to gasoline when it is the first supplied from a production facility (typically a refinery) or an import facility; these will be referred to as the “refiner” limits. The standards are as follows:

Property	Averaging Limit	Flat Limit	Cap
T50	200°F	210°F	220°F
T90	290°F (DAL not to exceed 310°F)	300°F	330°F
Olefins	4.0%	6.0%	10.0%
Aromatics	22.0%	25.0%	30.0%
Sulfur	30 ppm	40 ppm	80 ppm
Benzene	0.80%	1.00%	1.20%
Oxygen	None	1.8 wt% min to 2.2 wt% max	2.7 wt% max
RVP	None	7.00 psi	7.00 psi

Except in the case of RVP and oxygen content, the regulations provide two compliance options for meeting the limits applicable to gasoline being supplied from a production or import facility.

One option is to have the gasoline subject to a “flat limit,” which must be met by every gallon of gasoline leaving the production or import facility. The other option is to elect an “averaging limit.” The averaging limits established in the regulations for each of the six properties are more stringent than the comparable flat limits. Under the averaging option, the producer may assign differing “designated alternative limits” (DAL) to different batches of gasoline being supplied from the production or import facility. Each batch of gasoline must

meet the DAL for the batch. A producer or importer supplying a batch of gasoline with a DAL above the averaging limit must, within 90 days before or after, supply (from the same facility) sufficient quantities of gasoline subject to more stringent DALs to fully offset the excess over the averaging limit.

The CaRFG regulations also contain a compliance mechanism under which a producer or importer may use the “California Predictive Model” to identify alternative flat and averaging limits applicable when gasoline is supplied from the production or import facility. The Predictive Model provisions, which were adopted in 1994, consist of mathematical equations which estimate the changes in exhaust emissions of hydrocarbons, oxides of nitrogen (NO_x), and four toxic air contaminants that result from different gasoline formulations. The four toxic air contaminants are benzene, 1,3-butadiene, acetaldehyde, and formaldehyde. An alternative gasoline formulation is acceptable if the percent change in emissions is less than or equal to 0.04 percent for hydrocarbons, oxides of nitrogen, and the potency-weighted sum of the toxic air contaminants. No alternative limit may exceed the cap limit for the property.

The standards for oxygen content are administered differently from the rest of the standards. In most cases, CaRFG-compliant gasoline must have an oxygen content between 1.8 weight percent and 2.2 weight percent. However, producers and importers may use the Predictive Model mechanism -- or an analogous mechanism in which alternative gasoline formulations are certified based on a vehicle test program -- to establish a maximum oxygen content limit as high as 2.7 weight percent. Except in the winter, gasoline formulations meeting the Predictive Model or vehicle testing criteria are allowed to have less oxygen than 1.8 weight percent, including zero oxygen. Alternative formulations with oxygen contents below 1.8 weight percent are not allowable during specified winter oxygen control periods. This was done because the 1990 amendments to the federal Clean Air Act required that the State Implementation Plans (SIP) for all CO nonattainment areas include a minimum oxygen requirement in the winter months when CO concentrations are the highest (FCAA §211 (m)), and California contained eight CO nonattainment areas (along with two unclassified areas). The wintertime oxygen requirements are part of the California SIP, along with the rest of the CaRFG regulations.

The ARB staff has estimated emission reductions from on-road vehicles of 17 percent of hydrocarbons, 11 percent of NO_x, 11 percent of CO, and 40 percent of potency-weighted toxic emissions for gasoline that exactly complies with the averaging limits. Because actual gasolines are generally somewhat “cleaner” and because they provide unquantified emission benefits such as reducing combustion-chamber deposits, actual emission reductions are believed to be greater.

The Amendments

At an August 27, 1998 hearing, the Board considered proposed amendments that would:

1. Increase the “cap” limit for oxygen from 2.7 to 3.5 percent by weight.
2. Rescind in most areas the requirement for at least 1.8 percent oxygen, by weight, in gasoline used in the winter. Ultimately, the requirement would be retained only in the counties of Los Angeles, Orange, Riverside, and Ventura, in compliance with federal law,

and in Imperial County, where the state and federal air quality standards for CO continue to be violated. Also, it would be retained through January 31, 2000 in Fresno and Madera Counties, and the Lake Tahoe Air Basin, to ensure maintenance of the state standard for CO.

3. Make the following minor technical changes:

- Correct drafting errors in the existing provisions on averaging.
- For purposes of compliance with the March RVP phase-in period, make the application of the RVP limit to gasoline shipped from northern refineries to southern marine terminals uniform with its application to gasoline imported from out-of-state.
- Exempt gasoline used to fuel racing vehicles from the CaRFG standards.

After considering testimony at the August 27, 1998 hearing, the Board acted to adopt all of the proposed amendments except for the change in the cap limit for oxygen from 2.7 to 3.5 weight percent in Section 2262.5(b) (and a conforming change to the “California Procedures for Evaluating Alternative Specifications for Phase 2 Reformulated Gasoline Using the California Predictive Model,” incorporated by reference in Section 2265(a)(2)). The hearing considering the amendment raising the oxygen content cap was continued to the ARB’s December 10, 1998 meeting.

Comparable Federal Regulations

The 1990 amendments to the federal Clean Air Act (FCAA) require US Environmental Protection Agency (US EPA) to adopt regulations regarding reformulated gasoline (FCAA §211(k)). US EPA has adopted these regulations as 40 C.F.R. §80.40 to §80.82. In California, they apply in San Diego County, the greater Los Angeles area (Los Angeles, Orange and Ventura Counties, and parts of Riverside and San Bernardino Counties), and the greater Sacramento area (Sacramento County and parts of Yolo, Solano, Sutter, Placer, and El Dorado Counties).

The FCAA provides that the federal regulations must require no NO_x increase, a minimum 2.0 percent by weight oxygen content (with certain exceptions), a maximum 1.0 percent by volume benzene content, and limits on heavy metals. The federal regulations must also specify performance standards for hydrocarbons in the high ozone period and toxic compounds year-round in two phases -- the first starting in 1995 and the second starting in 2000. The US EPA regulations identify a “complex model” that must now be used in complying with the requirements.

While the federal RFG standards apply in the federal RFG areas in California, the ARB has worked with US EPA and gasoline producers to avoid unnecessary duplication of the enforcement requirements. In 40 C.F.R. §80.81, US EPA has exempted California producers from many of the federal enforcement requirements from March 1, 1996 to January 1, 2000, as long as certain criteria are met.

EXHIBIT B

OXYGENATE INFORMATION SHEETS

Oxygenate Information Sheets

California and other areas throughout the United States use reformulated gasoline to help reduce emissions of criteria pollutants and achieve compliance with various air quality standards. Oxygenates are a critical gasoline blending component that enables refiners to produce gasoline that conforms to the reformulated specifications. Most oxygenates, except ethanol, are completely compatible with the distribution system and can be easily shipped through pipelines to various locations throughout the state. This fact sheet provides a quick reference on the various types currently being blended into reformulated gasoline (RFG), what California is using, a definition of oxygenates, the intended purposes of their use, and some of the major differences in characteristics that make certain types of oxygenates more desirable than others.

Types: Oxygenates are grouped into two different classes, ethers and alcohols. Currently, there are three different ethers in use throughout the United States. The most popular one is methyl tertiary butyl ether (MTBE), followed by ethyl tertiary butyl ether (ETBE) and tertiary amyl methyl ether (TAME). Ethanol is the only alcohol currently in use as an oxygenate.

California: Refiners in California currently use MTBE (approximately 95,000 barrels per day) and some TAME (about 3,000 barrels per day) to meet most of their oxygenate needs. Only a small volume of ethanol is currently being used in California as an oxygenate due to a variety of factors, namely: lack of splash-blending equipment and inadequate segregated storage capacity throughout the distribution system and some less desirable blending characteristics (compared to other oxygenates). Approximately 85 percent of the MTBE used as oxygenates in California is imported from facilities located in the Middle East, Canada and the Gulf Coast of the United States. The remaining 15 percent is produced by California refineries from available feedstocks that are normally generated through the processing of crude oil. These refiners are unable to be completely self-sufficient in ether production because they lack the necessary volumes of feedstocks.

Definition: Oxygenates are a class of compounds that are blended with gasoline to increase the amount of oxygen contained in the fuel. Most petroleum blendstocks that are mixed together to create gasoline contain long chains of hydrocarbons consisting of hydrogen and carbon. It is the addition of oxygenates that provides the source of oxygen in RFG.

Purpose: Oxygenates are used to increase the oxygen content of gasoline so that the fuel will burn more completely in the engine, reducing tailpipe emissions of carbon monoxide. Many regions throughout the United States and especially California are in violation of federal carbon monoxide standards during the winter months and use oxygenated gasoline to reduce the number of violations and achieve compliance with

federal standards. Oxygenates are also used in reformulated gasoline year-round to dilute the volumes of other less desirable compounds, such as benzene, sulfur, aromatics and olefins. When the presence of these compounds is reduced to achieve compliance with the RFG regulations, octane is lost and must be replaced by mixing a high octane blendstock back into the gasoline. Oxygenates can and do serve this purpose.

Differences: Ethers exhibit many characteristics that are similar to gasoline and therefore do not pose any major challenge for the distribution infrastructure of pipelines, pumping stations, terminals, storage tanks, loading racks, delivery trucks, underground tanks and pumps at retail service stations.

Ethanol exhibits two characteristics that pose difficulties for distribution and compliance with certain gasoline specifications. First, ethanol has a great affinity for water, meaning ethanol will easily mix with any water encountered by ethanol in the distribution system, reducing the energy content of the ethanol and introducing problems with engines operating on gasoline containing contaminated ethanol. Because of this problem, ethanol is not blended with gasoline prior to shipment through the pipeline system, rather, ethanol is “splash-blended” with gasoline in the tanker truck prior to delivery to service stations. Ethers do not have an affinity for water (just like gasoline). Water that is normally found in small amounts throughout the distribution system does not mix with gasoline and can be drained from storage and automobile tanks because it separates from the gasoline and lies on the bottom of these tanks.

When ethanol is splash blended with gasoline, necessary precautions must be undertaken to ensure that the final blend of gasoline and ethanol will not violate the Reid vapor pressure (Rvp) standard, one of the fuel specifications regulated by state and federal regulatory agencies. Ethanol blended with gasoline tends to increase the Rvp of the finished gasoline greater than any of the ethers. As a consequence, gasoline shipped to terminals for splash-blending must contain an Rvp lower than normal (during the summer months) so that the final blended product does not exceed the Rvp standard. These batches of lower than normal Rvp gasoline are costlier to produce and require additional segregation from the other types of gasoline at the refinery. At the terminals, the ethanol used for splash-blending must also be stored separately and special equipment must be installed to allow for splash-blending.

Table 1

Characteristics of Oxygenates

Property	ETBE	Ethanol	MTBE	TAME	TBA
Fungibility in Gasoline Distribution System	High	Low	High	High	High
Energy Density - MBtu/gal (LHV)	96.9	76.0	93.5	100.6	94.1
Oxygen Content (wt.%)	15.7	34.8	18.2	15.7	21.6
Amount required to achieve 2.1 wt.% oxygen level in reformulated gasoline (volume percent)	13.4	6.0	11.5	13.4	9.7
Amount required to achieve 2.7 wt.% oxygen level in reformulated gasoline (volume percent)	17.2	7.8	14.8	17.2	12.5
Amount required to achieve 3.5 wt.% oxygen level in reformulated gasoline (volume percent)	22.3	10.0	19.2	22.3	16.2
Solubility in Water (wt.%)	1.20	Infinite	4.30	1.15	Infinite
Blending Rvp (psi)	4.0	18.0	8.0	2.5	9
Octane Blending (R+M)/2	112	115	110	105	100
Vapor Pressure Neat Rvp (100 Degrees F.)	4.40	2.30	7.80	1.50	1.70
Boiling Point (Degrees F.)	164	172	131	187	181
Density @ 60 degrees F. (lb/gal)	6.25	6.61	6.19	6.41	6.60
Latent Heat of Vaporization - MBtu/gal (@ N.B.P.)	0.83	2.39	0.86	0.90	1.55
Feedstocks	Isobutylene, Ethanol	Sugar Fermentation	Isobutylene, Methanol	Isoamylene, Methanol	Isobutylene, Water
U.S. EPA Additive Registration Approval	Yes	Yes	Yes	Yes	Yes

Notes:

MBtus/gal - Energy content in thousands of British thermal units per gallon.

LHV - Lower heating value.

wt.% - weight percent

Rvp - Reid vapor pressure.

psi - pounds per square inch

(R+M/2) - An arithmetic average of the Research and Motor octane values.

Octane - Measure of the antiknock performance, the higher the number, the greater resistance to knocking.

N.B.P. - normal boiling point

EXHIBIT C

FEDERAL REGISTER DOCUMENT

Change in Minimum Oxygen Content Requirement for Reformulated Gasoline

Change in Minimum Oxygen Content Requirement for Reformulated Gasoline ¹

[Federal Register: July 9, 1998 (Volume 63, Number 131)]

[Notices]

[Page 37112-37114]

From the Federal Register Online via GPO Access [wais.access.gpo.gov]

[DOCID:fr09jy98-75]

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ENVIRONMENTAL PROTECTION AGENCY

[FRL-6121-8]

Change in Minimum Oxygen Content Requirement for Reformulated Gasoline

AGENCY: Environmental Protection Agency.

ACTION: Notice.

SUMMARY: EPA's reformulated gasoline (RFG) program contains various standards for RFG, including an oxygen content standard. When the RFG program was implemented, the per-gallon minimum standard applicable to RFG in all covered areas was 1.5% by weight. In 1997, pursuant to the RFG regulations, EPA increased this standard by 0.1% to 1.6% by weight for several of the RFG covered areas (and for certain refineries, importers and blenders) because these areas failed a series of compliance surveys for oxygen content in 1996. Certain covered areas have failed the oxygen compliance survey series for 1997, and EPA is increasing the per-gallon minimum standard applicable to these areas by 0.1%. Since the previous increases remain in effect, the per-gallon minimum oxygen requirement in all but one of these areas failing in 1997 will increase to 1.7% by weight. This notice announces the increased standard, and describes the covered areas and parties that are subject to the increased standard. The increased standard will help ensure that all covered areas receive the full benefit of the oxygen content requirement in the RFG program.

FOR FURTHER INFORMATION CONTACT: Stuart Romanow, Fuels and Energy Division, Office of Mobile Sources, Environmental Protection Agency, Washington D.C. (6406J) 202-564-9296.

¹ Note a copy of this document may also be obtained at the following web page address:
<http://www.epa.gov/fedrgstr/EPA-AIR/1998/July/Day-09/a18080.htm>.

SUPPLEMENTARY INFORMATION:

I. Regulatory Entities

Regulatory categories and entities potentially affected by this action include:

Category	Examples of affected entities
Industry.....	Refiners, importers, oxygenate blenders of reformulated gasoline.

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be affected by this action. This table lists the types of entities that EPA is now aware could be potentially affected by this action. Other types of entities not listed in the table could also be affected. To determine whether your entity is affected by this action, you should carefully examine the existing provisions at 40 CFR 80.41. If you have questions regarding the applicability of this action to a particular entity, consult the person listed in the preceding FOR FURTHER INFORMATION CONTACT section.

II. Background

Section 211(k) of the Clean Air Act requires that EPA establish standards for reformulated gasoline (RFG) to be used in specified ozone nonattainment areas (covered areas). The RFG requirements contain performance standards for reductions of emissions from motor vehicles of ozone forming volatile organic compounds and toxic pollutants.

Standards for RFG are contained in 40 CFR 80.41. Refiners and other parties subject to the standards can choose to comply on either a per gallon basis or to comply on average. The standards for compliance on average ("averaged standards") are numerically more stringent than the per gallon standards. The averaged standards for RFG are contained in Sec. 80.41(b). These averaged standards include a per-gallon minimum requirement of 1.5 weight percent oxygen. This 1.5% per-gallon minimum oxygen requirement initially applied to all refineries, importers and blenders of RFG who elected to comply with the averaged standard for oxygen. However, as a result of oxygen survey series failures in 1996, EPA required that certain refineries, importers and blenders comply with a 1.6% minimum, beginning on September 29, 1997.² (The survey process and the consequences of oxygen survey series failures are described below.) The per-gallon minimum requirement is in addition to the requirement for 2.1 weight percent oxygen, on average. The average standard for oxygen must be met by a

² See "Change in Minimum Oxygen Requirement for Reformulated Gasoline" 62 FR 41047 (July 31, 1997).

refiner or oxygenate blender for all of the RFG it produced at a refinery or blending facility, or for RFG imported by an importer, but these parties are not required to meet this standard for the RFG supplied to each covered area separately.

Any refiner, importer or oxygenate blender has the option of meeting the RFG standards on average or per gallon. If a party is subject to the averaged standards, then the requirement to conduct surveys, as specified in Sec. 80.68, must be satisfied. In these surveys, RFG samples are collected at retail gasoline stations within covered areas and analyzed to determine if the RFG supplied to each covered area meets certain survey pass/fail criteria specified in Sec. 80.68. An oxygen survey series failure occurs in a covered area if the annual average oxygen content for all of the samples is less than 2.00 weight percent. The purpose of the surveys and the tightened standards which result if a survey is failed is to ensure that averaging over a refiner's entire production as compared to separate averaging for each covered area does not lead to the reduced quality of RFG in any covered area.

Since the implementation of the RFG program in 1995, these surveys have been conducted by the RFG Survey Association, a not-for-profit association of refiners, importers and blenders, using an EPA-approved survey design plan as required in the regulations. By letter dated January 30, 1998, the RFG Survey Association reported to EPA the results of its surveys for 1997, indicating that several survey areas failed to meet the annual average requirements of 2.00% oxygen by weight.³ After reviewing the data EPA determined that 7 areas did fail the survey series for oxygen content.⁴

The following covered areas failed the oxygen survey series:

1. Baltimore, MD area [Sec. 80.70(g)].
2. Houston-Galveston-Brazoria, TX area [Sec. 80.70(h)].
3. The entire State of Rhode Island [Sec. 80.70(j)(12)].
4. The Dallas-Fort Worth, TX area comprised of [Sec. 80.70(j)(13)]:

Collin County
Dallas County
Denton County
Tarrant County

5. Norfolk-Virginia Beach-Newport News (Hampton Roads), VA area comprised of [Sec. 80.70(j)(14)]:

Chesapeake

³ Letter dated January 30, 1998 from Frank C. Lenski, President, RFG Survey Association, to Charles Freed, Director, Fuels and Energy Division, EPA.

⁴ Letter dated March 4, 1998 from Charles Freed, EPA, to Frank Lenski, RFG Survey Association. Also see Memorandum dated March 20, 1998 from Stuart Romanow, Mechanical Engineer, Fuels and Energy Division to Charles Freed.

Hampton
James City County
Newport News
Norfolk
Poquoson
Portsmouth
Suffolk
Virginia Beach
Williamsburg
York County

6. Richmond, VA area comprised of [Sec. 80.70(j)(14)]:

Charles City County
Chesterfield County
Colonial Heights
Hanover County
Henrico County
Hopewell
Richmond

7. Washington D.C. area comprised of [Sec. 80.70(j)(2), (j)(6), (j)(14)]:

The District of Columbia
Calvert County, MD
Charles County, MD
Frederick County, MD
Montgomery County, MD
Prince Georges County, MD
Alexandria, VA
Arlington County, VA
Fairfax, VA
Fairfax County, VA
Falls Church, VA
Loudoun County, VA
Manassas, VA
Manassas Park, VA
Prince William County, VA
Stafford County, VA

The boundaries of the covered areas are described in detail in Sec. 80.70.

Under Sec. 80.41(o), when a covered area fails an oxygen content survey series, the minimum oxygen content requirement for that covered area is made more stringent by

increasing the per gallon minimum oxygen content standard for affected RFG subject to the averaging standard by 0.1%. This more stringent requirement applies beginning the year following the year of the failure. A more stringent requirement remains in effect for a covered area unless the area passes all oxygen content survey series in two consecutive years. Therefore, with the exception of the entire State of Rhode Island, the minimum per gallon oxygen requirement for the areas listed above is increased from 1.6% to 1.7% by weight. The minimum per gallon oxygen requirement for the entire State of Rhode Island is increased from 1.5% to 1.6% by weight. In addition, the minimum per gallon oxygen requirement for the Philadelphia-Wilmington-Trenton area and the Atlantic City, NJ area (Atlantic County and Cape May County), which failed oxygen content survey series in 1996, remains at 1.6% by weight.

The criteria identifying the refineries, importers and oxygenate blenders subject to adjusted standards are stated in Sec. 80.41(q). In general, adjusted standards apply to RFG that is subject to an averaging standard (“averaged RFG”) that is produced at a refinery or oxygenate blending facility if any averaged RFG from that refinery or facility supplied a failed covered area during 1996, or supplies the covered area during any year that the more stringent standards are in effect. The regulation provides for an exception based on certain volume limits [see 40 CFR Sec. 80.41(q)(1)(iii)].

Thus, if a refiner has elected for a refinery to be subject to the average oxygen standard, and if even a small portion of the RFG produced at the refinery is used in an area subject to an oxygen ratchet, the entire volume of RFG produced at the refinery is subject to the more stringent oxygen standard regardless of which area receives the RFG. This result is true regardless of whether the refinery's gasoline was supplied to the city in question during 1997 or during a year when the more stringent oxygen standard applies.

Under Sec. 80.41(q)(2), the applicability of adjusted standards to imported averaged RFG is specified by the Petroleum Administration for Defense District (PADD) in which the covered area is located and the PADD where the gasoline is imported. The covered areas that had oxygen survey series failures are located in PADDs I and III. Therefore, all RFG imported at facilities located in PADDs I, II, III or IV is subject to the adjusted oxygen standard. The states included in each PADD are identified in Sec. 80.41(r). In addition, if any RFG imported into any other PADD supplies any of the covered areas with oxygen survey failures, the adjusted standard applies to that RFG, as well.

Under Sec. 80.41(q)(3), any gasoline that is transported in a fungible manner by a pipeline, barge or vessel is considered to have supplied each covered area that is supplied with any gasoline by that pipeline, barge or vessel shipment unless the refiner or importer is able to establish that the gasoline it produced or imported was supplied only to a smaller number of covered areas.

Consider, for example, gasoline transported on the Colonial Pipeline, which supplies RFG to several cities that failed the oxygen survey in 1997. If a refinery's RFG was transported by the Colonial Pipeline any time during 1997, or any time during any year when the more

stringent oxygen standard applies, the more stringent oxygen standard applies to all RFG produced at the refinery regardless of the market. In addition, there is a presumption that, due to fungible mixing, each refinery's RFG that is transported by the Colonial Pipeline is in part supplied to each city supplied by the Colonial Pipeline. This presumption is rebuttable, but the rebuttal normally would require a refiner to have transported its RFG in a non-fungible manner. Thus, the more stringent standard applies to a refinery whose gasoline is transported on the Colonial Pipeline regardless of whether the refiner takes delivery of RFG in the specific cities that failed the oxygen survey.

The adjusted oxygen standard applies to all averaged RFG produced by a refinery or imported by an importer identified in Sec. 80.41(q). In accordance with Sec. 80.41(p), the effective date of this change is October 7, 1998.

Thus, under Sec. 80.41(p) the more stringent oxygen standard applies at all points of the distribution system beginning on October 7, 1998, including terminals supplying the affected covered areas and retail outlets in the covered areas. However, EPA believes it may be difficult for all regulated parties to transition to the new oxygen standard by October 7, 1998. As a result, EPA intends to enforce the new oxygen standard in a manner that gives parties additional time. Refiners, importers, and oxygenate blenders will be required to meet the new oxygen standard beginning October 7, 1998. In the case of parties other than refiners, importers, oxygenate blenders, retailers and wholesale purchaser-consumers, (e.g., pipelines and terminals supplying gasoline to affected covered areas) EPA will enforce the new oxygen standard beginning December 7, 1998.⁵ In the case of retail outlets and wholesale purchaser-consumer facilities located in the affected covered areas EPA will enforce the new oxygen standard beginning January 5, 1999. EPA has initiated a rulemaking to revise Sec. 80.41(p) to reflect the need for additional downstream transition time when a standard is changed.

Dated: June 9, 1998.
Richard D. Wilson,
Acting Assistant Administrator for Air and Radiation.

Sylvia K. Lowrance,
Acting Assistant Administrator for Enforcement and Compliance
Assurance.

[FR Doc. 98-18080 Filed 7-8-98; 8:45 am]
BILLING CODE 6560-50-P

⁵ This supersedes the timing of the enforcement of the downstream oxygen standards discussed in "RFG/Anti-Dumping Questions and Answers, November 12, 1996". See question and answer under topic "SURVEYS 11/12/96".

EXHIBIT D

BILL SUMMARY AND STATUS FOR THE 105TH CONGRESS

H.R. 630

BILL SUMMARY AND STATUS FOR THE 105TH CONGRESS

H.R. 630

SPONSOR: Rep Bilbray (Introduced 02/06/97)

TITLE:

A bill to amend the Clean Air Act to permit the exclusive application of California State regulations regarding reformulated gas in certain areas within the State.

STATUS: Floor Actions

NONE

STATUS: Detailed Legislative Status

HOUSE ACTIONS

Feb 6, 97: Referred to the House Committee on Commerce

Feb 14, 97: Referred to the Subcommittee on Health and Environment

Apr 22, 98: Subcommittee Hearings held

STATUS: Congressional Record Page References

02/10/97 Introductory Remarks on Measure (CR E196)

COMMITTEE(S):

Committee of Referral: House Commerce

Subcommittee: Hsc Health and the Environment

AMENDMENTS:

None

COSPONSORS:

Rep Lewis, Jerry - 02/06/97

Rep Calvert - 02/06/97

Rep Filner - 02/06/97

Rep Herger - 02/06/97

Rep Packard - 02/06/97

Rep Torres - 02/06/97

Rep Hunter - 02/06/97

Rep Cunningham - 02/06/97

Rep Rohrabacher - 02/06/97

Rep Dooley - 02/06/97

Rep Cox - 02/06/97
Rep Royce - 02/27/97
Rep Martinez - 03/03/97
Rep Thomas - 03/19/97
Rep Tauscher - 04/08/97
Rep Rogan - 04/15/97
Rep Millender-McDonald - 04/24/97
Rep Farr - 05/07/97
Rep Miller, G. - 05/07/97
Rep Eshoo - 05/13/97
Rep Dellums - 05/21/97
Rep Dixon - 06/03/97
Rep Lofgren - 06/03/97
Rep Stark - 06/17/97
Rep Waters - 06/20/97
Rep Campbell, Tom - 06/26/97
Rep Lantos - 07/09/97
Rep Doolittle - 07/10/97
Rep Brown, G. - 02/12/98

Rep Condit - 02/12/97
Rep Radanovich - 03/03/97
Rep Bono, Sonny - 03/19/97
Rep Fazio - 03/19/97
Rep Gallegly - 04/15/97
Rep Harman - 04/23/97
Rep Riggs - 05/07/97
Rep Horn - 05/07/97
Rep Roybal-Allard - 05/08/97
Rep Dreier - 05/16/97
Rep Capps, Walter - 06/03/97
Rep Pombo - 06/03/97
Rep Kim - 06/12/97
Rep McKeon - 06/20/97
Rep Sherman - 06/20/97
Rep Matsui - 07/09/97
Rep Pelosi - 07/09/97
Rep Woolsey - 07/14/97
Rep Becerra - 06/17/98

SUMMARY:

(AS INTRODUCED)

Amends the Clean Air Act to allow reformulated gasoline rules of States for which a certain waiver is in effect (permitting them to enforce State motor vehicle emissions standards) to apply in an ozone nonattainment area in lieu of Environmental Protection Agency-promulgated requirements if the State rules will achieve reductions in the aggregate mass of emissions of toxic air pollutants and the aggregate mass of emissions of ozone-forming compounds at least as great as would result from application of the Federal requirements.